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ROBERT E. KREBS				
THELEN REID & PRIEST LLP				
P.O. BOX 640640				
SAN JOSE, CA 95164-0640				
EXAMINER				
LE, DANH C				
ART UNIT		PAPER NUMBER		
2617				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/038,124

**Applicant(s)**

VANDERHELM, RONALD JOHN

**Examiner**

DANH C. LE

**Art Unit**

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,6-11,14-20 and 22-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19,20 and 22-31 is/are allowed.
- 6) ☒ Claim(s) 1-3,6-11,14-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAIL ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1, 2, 9, 11, 12, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson (US 6,404,393) in view of Gilson (US 5,600,845).**

As to claim 1, Nelson inherently teaches a core wireless engine design (figure 1, 108 and its description) comprising:

a transceiver (figure 2, 210);

a microprocessor (figure 2, 230); and

a standardized interface arrangement (108 which has 3 different types of interface, col.3, lines 45-46), adapted to be interconnected to a variety of types of host interfaces (hosts 120, 135) implementing a plurality of bus standards (bus 10, another bus form peripheral device to peripheral component 100), each host interface designed to interface with the standardized interface arrangement (108 has reception interface X-jack or RJ11 or RJ-45 or wire-line connector).

Nelson fails to teach a host interface positioned within a field programmable gate array. Gilson teaches a host interface positioned within a field programmable gate array (figure 1). Therefore, it would have been obvious to one of ordinary skill in the art

at the time the invention was made to provide the teaching of Gilson into the system of Nelson in order to operate at faster speeds.

As to claim 2, Nelson teaches the core wireless engine design of Claim 1 wherein the core wireless engine is designed to fit into a variety of form factor units (col.3, line 33-col.4, line 9).

As to claim 9, Nelson teaches the core wireless engine design of Claim 2, wherein the core wireless engine is housed in a form factor that is less than 5 millimeters thick (col.5, lines 21-33).

As to claim 11, Nelson teaches a core wireless engine design comprising:

a transceiver (figure 2, 210);

a microprocessor (figure 2, 230); and

a standardized interface arrangement adapted to be interconnected to a variety of types of host interfaces implementing a plurality of bus standards, each host interface designed to interface with the standardized interface arrangement (see cited on claim 1).

wherein the core wireless design is adapted to fit into a variety of form factor units (col.3, line 33-col.4, line 9).

Nelson fails to teach a host interface positioned within a field programmable gate array. Gilson teaches a host interface positioned within a field programmable gate array (figure 1). Therefore, it would have been obvious to one of ordinary skill in the art

at the time the invention was made to provide the teaching of Gilson into the system of Nelson in order to operate at faster speeds.

As to claim 12, Nelson teaches the system including the core wireless design of Claim 11 wherein the system further includes a host interface (figure 1, 120).

As to claim 17, the limitation of the claim is the same limitation of claim 9; therefore, the claim is interpreted and rejected as set forth as claim 9.

**3. Claims 3, 6-8, 10, 15, 16, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson and Gilson in view of Lazzarotto (US 6,782,245).**

As to claim 3, Nelson and Gilson teaches the core wireless engine design of Claim 2, wherein the core wireless engine is designed to fit within PCMCIA. Nelson and Gilson fails to teach Compact Flash cards. Lazzarotto teaches Compact Flash cards (col.13, lines 16-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Lazzarotto into the system of Nelson in order to enhance the system performance of the embedded antenna a type II PCMCIA card.

As to claim 6, Nelson, Gilson and Lazzarotto teaches the core wireless engine design of Claim 1, wherein the variety of host interfaces includes a PCMCIA interface and a Compact Flash card interface (col.13, lines 16-45).

As to claim 7, Nelson, Gilson and Lazzarotto teaches the core wireless engine design of Claim 1, wherein the variety of host interfaces includes a PCMCIA interface as well as a Compact Flash interface (col.13, lines 16-45).

As to claim 8, Nelson, Gilson and Lazzarotto teaches the core wireless engine design of Claim 2, wherein the variety of form factors includes a Compact Flash form factor (col.13, lines 16-45).

As to claim 10, Nelson, Gilson and Lazzarotto teaches the design according to Claim 1 wherein the core wireless engine is less than 36 millimeters wide and 41 millimeters high (col.13, lines 16-45).

As to claim 15, 16, 18; the limitations of the claims are the same limitations of claims 7, 8, 10; therefore, the claims are interpreted and rejected as set forth as claims 7, 8, 10.

**Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson and Gilson in view of Pitsoulakis (US 7,092,375).**

As to claim 14, Nelson and Gilson teaches the system of Claim 11, wherein the core wireless engine design. Nelson and Gilson fails to teach further the standardized interface arrangement includes a standardized set of registers. Pitsoulakis teaches the standardized interface arrangement includes a standardized set of registers (Pitsoulakis figure 9, 902).. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Pitsoulakis into the system of Nelson and Gilson in order to receive signals such as data, control and serial/detonator.

***Allowable Subject Matter***

1. The indicated object-ability of claim 5 is withdrawn in view of the newly discovered reference(s) to Gilson. Rejections based on the newly cited reference(s) above.

Claims 19, 20, 22-31 are allowed in the previous Office Action.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANH C. LE whose telephone number is 571-272-7868. The examiner can normally be reached on 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM TROST can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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March 11, 2008

/DANIEL/

Primary Examiner, Art Unit 2617